

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

REC'D 29 JUN 2005

PCT  
WIPO

## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing  
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference  
see form PCT/ISA/220

### FOR FURTHER ACTION

See paragraph 2 below

International application No.  
PCT/US2004/037706

International filing date (day/month/year)  
12.11.2004

Priority date (day/month/year)  
13.11.2003

International Patent Classification (IPC) or both national classification and IPC  
C02F5/00

Applicant  
USFILTER CORPORATION

#### 1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

#### 2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

#### 3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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**Box No. I Basis of the opinion**

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1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
  - This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:
    - a sequence listing
    - table(s) related to the sequence listing
  - b. format of material:
    - in written format
    - in computer readable form
  - c. time of filing/furnishing:
    - contained in the international application as filed.
    - filed together with the international application in computer readable form.
    - furnished subsequently to this Authority for the purposes of search.
3.  In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

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**Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

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The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

the entire international application,  
 claims Nos. 11-13, 16-69

because:

the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (*specify*):

the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*):

the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.

no international search report has been established for the whole application or for said claims Nos. 11-13, 16-69

the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:

|                            |                                                                                                               |
|----------------------------|---------------------------------------------------------------------------------------------------------------|
| the written form           | <input type="checkbox"/> has not been furnished<br><input type="checkbox"/> does not comply with the standard |
| the computer readable form | <input type="checkbox"/> has not been furnished<br><input type="checkbox"/> does not comply with the standard |

the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions.

See separate sheet for further details

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/US2004/037706

**Box No. IV Lack of unity of invention**

1.  In response to the invitation (Form PCT/ISA/206) to pay additional fees, the applicant has:
  - paid additional fees.
  - paid additional fees under protest.
  - not paid additional fees.
2.  This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rule 13.1, 13.2 and 13.3 is
  - complied with
  - not complied with for the following reasons:

**see separate sheet**
4. Consequently, this report has been established in respect of the following parts of the international application:
  - all parts.
  - the parts relating to claims Nos. 1-10 14 15 70

**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or  
industrial applicability; citations and explanations supporting such statement**

1. Statement

|                               |      |                      |
|-------------------------------|------|----------------------|
| Novelty (N)                   | Yes: | Claims 9 10          |
|                               | No:  | Claims 1-8 14 15 70  |
| Inventive step (IS)           | Yes: | Claims               |
|                               | No:  | Claims 1-10 14 15 70 |
| Industrial applicability (IA) | Yes: | Claims 1-10 14 15 70 |
|                               | No:  | Claims               |

2. Citations and explanations

**see separate sheet**

**Re Item III.**

As a consequence of the non establishment of the Search Report for these parts of the application no opinion will be given on claims 11-13, 16-69.

See also item IV.

**Re Item IV.**

The separate inventions/groups of inventions are:

claims: 1-10 14 15 70 System comprising a pressurized vessel

claim: 11 System comprising a specific controller

claim: 12 System for treating chlorine containing water

claim: 13 68 69 System comprising heat exchanger

claims: 16, 21-29 40-45 Water treatment method and system comprising an auxiliary use

claim: 17 Irrigation system

claim: 18 Household water distribution system

claim: 19 System for treating water with a conductivity of less than 220 microsiemens / cm

claim: 20 Electrodeionization system

claims: 30-39 Method comprising treating water from a reservoir outside it and returning the treated water there

claims: 46-50 Water distribution system comprising pretreatment

Claims: 51-55 60-67 water treatment system and methods comprising means for

accumulating water.

claims: 56-59 Method for treating water comprising mixing treated and non treated water

They are not so linked as to form a single general inventive concept (Rule 13.1 PCT) for the following reasons:

According to administrative instructions under the PCT (in force from 1st July 1998), annex B, part 1(c), unity of invention has to be considered in the first place only in relation to the independent claims.

The application contains 11 independent claims, i.e. claims 1, 21, 30, 40, 46, 51, 56, 60, 62, 68, and 70.

Claim 1 relates to a system comprising a pressurized vessel

Claim 21 relates to a system comprising an auxiliary use

Claim 30 relates to a method comprising treating water from a reservoir outside it and returning the treated water there.

Claim 40 relates to a method of water treatment comprising an auxiliary use.

Claim 46 relates to a water distribution system comprising a pretreatment

Claim 51 relates to a system comprising means for accumulating water

Claim 56 relates to a method for treating water comprising mixing treated and non treated water

Claim 60 relates to a method of treating water comprising accumulating water

Claim 62 relates to a method of treating water comprising accumulating water

Claim 68 relates to a system comprising an heat exchanger

Claim 70 relates to a method for facilitating water treatment comprising providing a system comprising a pressurisable reservoir

As a consequence of a novelty objection against independent claim 1 and the rest of the disclosure of document D1 : us 2003/080467 no common or corresponding special (new and inventive) technical feature is present between the above mentioned independent claims as required by Rule 13.2 PCT.

Thus there is no single general inventive concept between the above mentioned independent claims as required by Rule 13.1 PCT.

If an independent claim is not novel, the question of whether there is still an inventive link between all the claims dependent on that claim needs to be considered according to the administrative instructions under the PCT (in force from 1st July 1998) annex B, part 1(c)(ii):

As D1 is novelty destroying for claim 1-7 there are no common or corresponding special technical features linking the claims directly depending on any one of claims 1-7

Therefore there is no single general inventive concept between these dependent claims as required by Rule 13 (1) PCT.

Consequently 15 groups of inventions could be discovered in the application as mentioned below.

I: Claims 1-10 relate to a a system comprising a pressurized vessel

II: Claim 11 relates to a a system comprising a specific controller

III: Claim 12 relates to a system for treating chlorine comprising water

IV: Claims 13 68, 69 relate to a a system comprising a heat exchanger

V: Claims 14, 15 relate to a a system comprising a water proptry sensor

VI: Claims 16, 21-29, 40-45 relate to a water treatment system and method comprising

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING  
AUTHORITY (SEPARATE SHEET)**

International application No.  
PCT/US2004/037706

an auxiliary use

VII: Claim 17 relates to an irrigation system

VIII: Claim 18 relates to a household water distribution system

IX: Claim 19 relates to a system for treating water with a conductivity of less than 220 microsiemens / cm

X: Claim 20 relates to an electrodeionization system

XI: Claims 30-39 relate to a method comprising treating water from a reservoir outside it and returning the treated water there.

XII: Claims 46-50 relate to a water distribution system comprising a pretreatment

XIII: Claims 51-55, 60-67 relate to water treatment system and methods comprising means for accumulating water

XIV: Claims 56-59 relate to a method for treating water comprising mixing treated and non treated water

XV: Claim 70 relates to a method for facilitating water treatment comprising providing a system comprising a pressurisable reservoir

Although the subject matter of claims 1-7 is known from D1 and a lack of unity objection may be raised the examiner is able to perform the search of group I together with groups V and XV without effort justifying an additional fee.

According to the article 17(3)(a) PCT the ISA established the international search report on those parts of the international application which relate to the invention first mentioned in the claims, i.e. the above mentioned group 1.

**Re Item V**

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING  
AUTHORITY (SEPARATE SHEET)**

International application No.  
**PCT/US2004/037706**

**Reasoned statement with regard to novelty, inventive step or industrial  
applicability; citations and explanations supporting such statement**

Reference is made to the following document:

D1: US 2003/080467 A1 (ANDREWS CRAIG C ET AL) 1 May 2003 (2003-05-01)

Independent claims 1 and 70:

The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claims 1 and 70 is not new in the sense of Article 33(2) PCT.

The document D1 discloses (the references in parentheses applying to this document) a system and a method for water treatment whereby the system comprises (Fig 7.) a pressurized reservoir (353) connected to a point of entry (with line 363), a water treatment device (364) and electrochemical water treatment devices (ozonation devices 356 and 359). All the water treatment devices are fluidly connected with said reservoir, a water distribution system (362) and at least a point of use (paragraph 3) connected to said distribution system.

The method disclosed by D1 of using said system permits water treatment and therefore facilitates it.

Dependent claims

Dependent claims 2-10, 14, 15 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step, see document D1 .